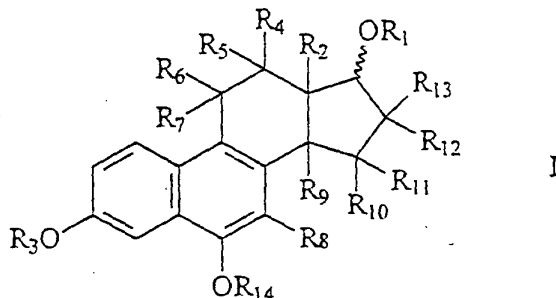


NOVEL ESTROGENIC COMPOUNDS

Abstract of the Disclosure

Novel estrogenic compounds of Formula I are provided.



- 110 wherein the bond represented by the wavy line may be a single or double bond such that when the wavy line is a single bond, R_1 is selected from the group consisting of hydrogen, sulfate and glucuronate or other esters, and when the wavy line is a double bond, R_1 does not exist; R_2 is lower alkyl; R_3 may be selected from the group consisting of hydrogen, sulfate, or glucuronide or other esters; and R_4 through R_{13} may independently be selected
- 115 from the group consisting of hydrogen, hydroxy, ketone, lower alkyl, lower alkoxy, halogen, and carbonyl groups and R_{14} is selected from the group consisting of hydrogen, sulfate and glucuronide and other esters. When R_1 is hydroxy, the hydroxy or ester substituent may have either an α or a β orientation. Compositions of matter including compounds of the present invention are also provided as are methods of treating
- 120 mammals in need of treatment using compounds of the present invention.